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| Sustainability at Millipore | November 16BUAD 6600 |
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**Objective/Scope**

As manufacturing has had devastating effects on our environment in the past decades, it is imperative that corporations start taking responsibility and start seeking out more sustainable ways of conducting business. Millipore Corporation has begun to do just that and is now seeking more ways to improve their impact on the environment. Sustainability has been incorporated into the corporate strategy and many changes have been implemented which have provided for financial benefits. However, it is now time for Millipore to determine other ways of creating a more sustainable environment even if a project proves not to have a NPV.

**Summary**

Currently, Millipore has implemented sustainable practices in its business operations in order to improve its impact on the environment. As of 2007, Millipore launched the Sustainability Initiative, a corporate-wide commitment to environmental sustainability aimed at “reducing the consumption of non-renewable resources, reducing waste, and adopting behavioral changes that support sustainability company-wide.” The Sustainability Initiative is managed by a Sustainability Team that overlooks current waste-reducing practices and brainstorms future sustainability initiatives.

Millipore has adopted many operational changes geared towards reducing waste. For example, energy audits are conducted by both external and internal consultants and are used to determine ways to reduce energy waste. It was the use of energy audits that lead to Millipore installing energy-efficient lighting and motion sensors.

In order to make the Sustainability Initiative apparent to all employees, Millipore started to implement behavioral changes designed to support sustainability. For example, Millipore’s dining services started using washable plates and compostable plastic cutlery. Also, employees who qualified for a company car were given incentives to choose from hybrid vehicles in order to improve fuel efficiency. As sustainable practices were made known to Millipore employees, they started to realize that “the new initiatives [were not] just talk.”

Through careful analysis, the Sustainability Team set a goal to reduce greenhouse gas emissions (GHG) by 20% by 2011. By continuing current sustainable practices and incorporating future initiatives, Millipore is confident that this goal will be reached. However, stakeholders at Millipore are starting to express some concerns with the large monetary investments made in order to reach this goal.

**Recommendations**

The following recommendations have been made in order to continue striving towards Millipore’s newly adopted corporate strategy of sustainability:

* Employ additional sustainability experts outside of Millipore’s current personnel
* Integrate sustainability deep into the core of the company’s strategy
* Utilize a matrix structure in the sustainability initiative in order to penetrate the ideas deep into the company’s practices and culture
* Limit the new sustainability measures to Millipore’s three largest facilities until practices are proven effective
* Set an absolute goal for Greenhouse Gas emissions (GHG) improvement
* Focus on Scopes 1 and 2 of the GHG Protocol
* Do not invest in Carbon Offsets
* Select projects that are feasible within a reasonable amount of time and that will have either a positive, neutral, or only slightly negative financial effect
* Research and Development
* Sourcing
* Dining Services
* Improve employee awareness through training
* Provide incentives to employees to adopt a new attitude more closely aligned with Millipore’s corporate strategy
* Job hierarchy changes
* Lean manufacturing

JH & JAMES (please add your part here)

**Analysis**

*Expertise*

In order to achieve Madau’s vision of carbon neutrality, Millipore will need to bring in specific expertise on sustainability and environmental practices. Either through direct hiring or outsourcing to consultants, experts should be called upon. Implementing the expertise of outside parties would bring the experience of others and fresh ideas into Millipore. Because the goals set by Newman and Madau were so aggressive, seeking help to achieve them is recommended.

*Depth of Initiative*

Sustainability will need to be integrated deep into the core of the company’s strategy. This would be consistent with Millipore’s vision statement to ”...become environmentally sustainable in the long-term” and ensure that sustainable considerations are taken into account from the beginning of any decision making process from top management down to operations. Decisions towards a sustainable operation need to start with R&D. Otherwise goals may not be aligned with what is and is not possible for a product line.

*Structure*

The structure of this initiative will need to be in the form of a matrix. Top down management can bring the issues into light and make clear the intentions of the company and its management. However, having leadership for this movement in all levels and departments is the only way to make sustainability a homogenous effort throughout a company as large and diverse as Millipore. Making the sustainability goals a priority with all managers and workers is essential to successfully achieving results.

*Global Reach of Initiative*

Starting any aggressive measures toward a sustainable goal should be limited to the company’s three largest facilities to begin with. This will make implementation easier and less costly to manage while allowing for a learning curve before making the changes companywide across the globe. Unsuccessful measures could be abandoned before being implemented globally. Also, the implementation process would be better understood and documented which would make the changes more streamlined at the other locations.

*Target Measurement*

If Newman and Madaus want to realize a 20% reduction in Greenhouse Gas emissions (GHG), a minimum of five years should be allowed to implement the changes. Assuming that considerations for doubling their business have already been taken into account when deciding on this goal, an absolute target is appropriate. This will give them measurable results that are not distorted by varying operational factors.

*GHG Protocol Scope*

Sticking to Scopes 1 and 2 of the GHG Protocol will help Millipore to focus on reductions in emission that are within their control and measurable. Scope 3 should not be ignored altogether, but it is not feasible at this point to undergo practices that would require forcing changes both backwards and forwards through the supply chain. However, initiatives such as offering incentives to employees to chose vehicles with cleaner exhaust and redesigning product packaging to have less of an impact in terms of waste is are still viable options. The results to Millipore’s sustainability goals may be more difficult to measure, but they are still consistent with the corporate vision.

*Use of Carbon Offsets*

Carbon offsets should not be employed in the sustainability initiative because they are not an actual reduction in GHG emission at Millipore. Because a vision statement has been declared placing sustainability at the core of the business strategy, buying the right to pollute while investing in reductions elsewhere, which may or may not be realized is not an appropriate measure.

*Project Decisions*

Possibly the most perplexing decision is which projects Millipore should take on toward sustainability and GHG reductions moving forward. The case states that the “low hanging fruit” has been picked. It also states that future projects may not have a positive net present value to the company. This is acceptable as long as the margins being realized by Millipore will support small increases in expenditure for achieving their goals. The projects need to be ones that are not so farfetched that they cannot be reasonably achieved and that are not bottom line killers. The initiative is moot if the company cannot yield profits.

Sourcing of raw materials is an area that Millipore could look into. They have a goal of becoming free of dependency upon petroleum based raw materials. Depending on the sensitivity of specifications for each product, they could consider using recycled plastics in their manufacturing to reduce the need for un-used plastics. This could also be a cost saver depending upon where the recycled materials come from.

Continuing to look for “low hanging fruit” projects that may have been previously missed is also recommended. Is it more efficient to stop using biodegradable corn-based eating utensils in the dining services and simply wash metal silverware with the porcelain plates? Can they install motion detectors to control lights in restrooms and offices like they did in one warehouse? Are their administrations offices employing paperless policies? Are the cooling and heating systems as energy efficient as they could be for Millipore’s facilities? Do their restrooms produce paper towel waste, or are blow dryers used? There are many ways to cut costs and save resources that are easy to overlook.

*Employee Awareness and Training*

Sustainability will need to be integrated deep into the core of the company’s strategy. This would be consistent with Millipore’s vision statement and ensure that sustainable considerations are taken into account from the beginning of any decision making process from top management down to operations.

In order to implement sustainability awareness into the core strategy of Millipore Corporation, the incumbents of the organization must accept these changes and implement them into their work every day. In order to achieve this new mentality, all employees of the organization should receive training on this new strategy to make clear the reasons for this new strategy.

This training will be implemented and conducted by the Human Resources department. Each employee of Millipore, general labor and supervisors and managers alike, will attend a training session which will explain the impact the company makes on the environment and provide reasoning behind why this is important. Subsequently, the training session will encourage all employees to take part in this new culture and will be enlightened as to what Millipore has done to date to reduce their impact on the environment and how this has positively affected the company’s profits.

*Employee Incentives/Culture*

In order to help change attitudes of employees and show how seriously Millipore takes their new corporate strategy, Millipore should provide incentives to current employees for making changes in their personal lives. This should be done in hopes that employees will adopt a positive attitude towards sustainability and that this new attitude will carry over into the workplace and individuals’ attitudes will align better with the corporate strategy

To help aid in this new attitude of employees toward sustainability, Millipore should provide incentives for employees to make changes. One big change would be for employees to trade their existing vehicles in for more energy efficient and economically friendly vehicles. In order to aid in this change, Millipore should provide financial incentives to any employee who is willing to make this change.

While this will not provide a direct financial savings for Millipore, it will provide a direct impact on the environment due to the fact that these vehicles will presumably be used to transport employees to and from Millipore on days in which they are scheduled to work. Not only will this have a direct impact on the environment, it is assumed that providing incentives for employees to make this change will help show how serious Millipore is about creating a sustainable environment and help align employee attitudes with the corporate strategy.

*Job Hierarchy Changes*

JH

*Lean Manufacturing*

Lean manufacturing is in line with the sustainability goals at Millipore as it focuses on reducing waste in the manufacturing process. Operating lean not only decreases the amount of waste carried out of a facility. It also forces operations to be more efficient. The reduction of losses including material and energy is at the heart of lean manufacturing. Adopting lean practices would have the positive side effect of aligning with the overall sustainability goals at the core of Millipore’s strategy.

**Assumptions**

If there is nothing listed here, please delete before printing!!

**Implementation** **Plan**

*Employee Awareness and Training*

A survey will be conducted prior to the sustainability training session as well as two weeks following the training session to determine how employee attitudes have changed towards achieving sustainability and see how closely matched employee attitudes are with the corporate strategy. (Please see Exhibit 1)**Appendix**

*Exhibit 1*

SUSTAINABILITY TRAINING SURVEY

This survey is to be administered prior to beginning the training and again two weeks following the training to determine if attitudes have changed to align with the corporate strategy.

Your compliance with this survey is mandatory and completely confidential and will have no impact on promotions, job duties, etc… This survey will only be used to determine if further training is necessary to help align employee attitudes with or corporate strategy.

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Department \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Supervisor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1) What ways have you currently taken action to live a more green way of life?

2) Are you aware of what Millipore is currently doing to provide a cleaner and more sustainable environment?

3) On a scale of 1 – 10 how much do you care about sustainability and our impact on the environment (with 1 being you not caring at all and 10 being you care about it and make choices everyday that positively impact the environment)? Please circle one and then tell us why you do or do not care about sustainability.

1 2 3 4 5 6 7 8 9 10

3) On a scale of 1 – 10 how much do you care feel your supervisor is striving to align their goals with the company’s strategy of sustainability (with 1 being not at all and 10 being completely)? Please circle one.

1 2 3 4 5 6 7 8 9 10

4) Do you have any suggestions for Millipore on how we as a corporation can strive to be a more sustainable company and reduce our impact on the environment?